

010284

2961 S 500 E

phone 801-467-0354

Salt Lake City, UT 84106

RECEIVED

JUL 10 2001

Dr. Jane Summerson, EIS Document Manager, M/S 010

U.S. Department of Energy

Office of Civilian Radioactive Waste Management

Yucca Mountain Site Characterization Office

P.O. Box 30307

North Las Vegas, NV 89036-0307

Re: Yucca Mountain Supplement to the Draft EIS

Dear Dr. Summerson:

As a physicist, I am impressed with the great amount of effort that went into the EIS. The Yucca Mountain facility will probably be needed for disposal of some of the troublesome waste created in the weapons programs, but for storing spent nuclear fuel (SNF) from commercial reactors, I believe there are better alternatives which should be used first.

I believe it likely that the U.S. will again begin to reprocess commercial SNF, before 2010. To overcome the major contrary argument--that we must avoid any stockpiles of plutonium or technology by which rogue nations might obtain bomb-grade material--note that the genie is already out of the bottle. Perhaps the easiest way for a rogue nation would be to develop their own uranium ores and a laser enrichment process, which might yield 80 percent uranium 235 in one operation. Considering the existing stockpiles of plutonium in the world and the fact that several of our allies already reprocess, the level of the proliferation risk is already high enough that our decision to again reprocess would have only a small impact, especially if we take steps to minimize any exposure of our plutonium to theft before it is put into MOX fuel and continue pressuring any potential new nuclear states not to proceed.

When we again reprocess SNF there will no longer be a need for 10,000 years of secured storage of SNF but only about 300 years of secured storage for the vitrified fission wastes. In addition to the shorter storage time, the heat output will diminish faster, easing time requirements for forced air cooling. In fact, the need for a geologically secure storage facility itself can then be questioned, with far less expensive surface or near-surface options being adequate.

Near-surface storage of SNF, hardened against any airplane accidents or stray missiles, would be able to dissipate the heat effectively under monitored conditions, and be ideal for retrieval of SNF for reprocessing or for storage of the vitrified wastes. Such near-surface storage is in the early stages of development by P&A Engineers, and is covered by a patent regarding dry pool storage.

A major function of reprocessing plus a near-surface storage facility is to permanently remove the logjam from the nuclear power industry and allow nuclear wastes to be taken care of in a scientifically sound manner for centuries to come. Yucca Mountain is able to start this process, assuming the EIS is as sound and complete as it appears to be.

Sincerely,



Steven C. Barrowes, Ph.D.

Member, Scientists for Secure Waste Storage